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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

1.   (Currently Amended) A data transfer method for transferring data between two processing systems, wherein said two processing systems operate independently, said method comprising:

receiving a wireless signal data packet from a radio frequency physical layer processing system;

storing the received data packet into a first memory device, the received data packet comprising a header portion and a data portion;

formatting the data portion by a media access control layer processor while the data packet is stored in the first memory device; and

executing a single processor instruction on the media access control layer processor to directly transfer a portion of the stored data packet from the first memory device to a main memory device

determining whether the data packet belongs to a data stream by the first processing system;

transferring the header portion to a first memory of the second processing system and the data portion to a second memory of the second processing system responsive to determining the data packet belongs to a data stream; and

transferring the header portion and the data portion to a first memory of the second processing system responsive to determining the data packet does not belong to a data stream .

2.   (Currently Amended): A data transfer method according to claim 1, wherein said method further comprises:

transferring the data portion of the data packet stored in said main first memory device of the second processing system to a host the second memory device of the second processing system, wherein the second memory is upstream of a host processor.

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3.   (Original) A data transfer method according to claim 1, wherein said first memory device is a FIFO memory device.

4.   (Currently Amended) A data transfer method according to claim [[2]]1, wherein said ~~host~~ second memory of the second processing system ~~device~~ is a FIFO memory device.

5.   (Original) A data transfer method according to claim 1, wherein method further comprises byte-aligning the data stored in said first memory device.

Claims 6-9 (Cancelled).

10.   (Currently Amended) A system for transferring data between two processing systems, wherein said two processing systems operate independently, said system comprising:
       means for receiving a wireless signal data packet from a radio frequency physical layer processing means;
       means for storing the received data packet into a first memory means, the received data packet comprising a header portion and a data portion;
       ~~means for formatting the data portion by a media access control layer processing means while the data packet is stored in the first memory means; and~~
       ~~executing a single processor instruction on the media access control layer processing means to directly transfer portion of the stored data packet from the [[fist]] memory means to a main memory means~~
       means for determining whether the data packet belongs to a data stream by the first processing system;
       means for transferring the header portion to a first memory of the second processing system and the data portion to a second memory of the second processing system responsive to the means for ~~determining~~ ascertaining that the data packet belongs to a data stream; and
       means for transferring the header portion and the data portion to a first memory of the second processing system responsive to the means for ~~determining~~ ascertaining that the data packet does not belong to a data stream.

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11.   (Currently Amended) A system according to claim 10, wherein said system further comprises:

means for transferring the data portion of the data packet stored in said ~~main~~ first memory ~~means~~ of the second processing system to ~~a host~~ the second memory ~~means~~ of the second processing system, ~~upstream of a host processor~~.

12.   (Original) A system according to claim 10, wherein said first memory means is a FIFO memory device.

13.   (Currently Amended) A system according to claim 11, wherein said ~~host~~ second memory ~~means~~ is a FIFO memory device.

14.   (Original) A system according to claim 10, wherein system further comprises means for byte-aligning the data stored in said first memory means.

15.   (Currently Amended) A system ~~for transferring data between two processing systems, wherein said two processing systems operate independently, said system~~, comprising:

means for receiving a wireless signal data packet from a radio frequency physical layer processing means;

means for storing the received data packet into a first memory means, the received data packet comprising a header portion and a data portion;

means for processing the header portion of the packet by a media access control layer processor means while the packet is stored in the first memory means;

means for executing a single processor instruction on the media access control layer processor means to directly store the header portion and the data portion of the data packet into a first memory associated with a host processing means responsive to the means for processing determining the data packet does not belong to a data stream; and

means for executing a single processor instruction on the media access control layer processor means to directly store the header portion into a first memory means associated with the host processing means and to directly store[[a]]data portion of the data packet ~~stored in the~~

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~~main memory means to a host memory means upstream of a host processor~~into a second memory means associated with the host processing means responsive to the means for processing determining the data packet belongs to a data stream.

16. (Previously Presented) A system according to claim 15, wherein said media access control layer processing means formats the data portion stored in said host memory means using a host protocol so as to enable communication of the data portion to a remote host across a wired network.

17. (Original) A system according to claim 15, wherein said first memory means is a FIFO memory device.

18. (Currently Amended) A system according to claim 16, wherein said second memory means associated with the host ~~memory~~processing means is a FIFO memory device.

Claims 19-42 (Cancelled).

43. (New) A method according to claim 1, further comprising:
determining from the data packet a number of subsequent data packets belonging to the stream, the subsequent data packets having a header portion and a data portion; and
automatically transferring the header portion of the subsequent data packets to the first memory of the second processing system and the data portion of the subsequent data packets to the second memory of the second processing system from the first memory device.